



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/521,786	08/31/1995	MICHAEL R. HATCH	73600.P002R	3221

27660 7590 01/30/2003

BURGESS & BEREZNAK LLP
800 WEST EL CAMINO REAL
SUITE 180
MOUNTAIN VIEW, CA 94040

EXAMINER

TUPPER, ROBERT S

ART UNIT PAPER NUMBER

2652

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/521,786

Applicant(s)

HATCH ET AL.

Examiner

Robert S Tupper

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 1995.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 1995 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3,4</u> | 6) <input type="checkbox"/> Other: |

Art Unit: 2652

1. The decision in Patent Interference No. 103,228 held that this application is not entitled to claims 3-5, 13/3-13/5, 14/13/3-14/13/5, 17/13/3-17/13/5, and 19/13/3-19/13/5.

Applicant is required to cancel claims 3-5, and amend claims 13, 14, 17, and 19 to conform with the decision.

Applicant must CAREFULLY and COMPLETELY follow the requirements of 37 CFR 1.173(b)(2), 37 CFR 1/173(c), and 37 CFR 1/173(d) in making changes to the claims. Applicant should NOT present "clean" and "marked up" copies as done in non-reissue applications. Applicant should present ONLY ONE copy of the claims with amendments made as per 37 CFR 1.173(b)(2) and (d).

2. The following Office Action will not consider claims 3-5, 13/3-13/5, 14/13/3-14/13/5, 17/13/3-17/13/5, and 19/13/3-19/13/5.

3. The amendment of 6/17/96 has not been entered. It does not present the changes to the specification and claims as required by 37 CFR 1.173(b)(1), (b)(2), (c), and (d).

Applicant must present these in proper form to have these changes considered.

4. The original patent, or a statement as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178.

Art Unit: 2652

5. The drawings are objected to because figure 6C has not been amended correctly. Applicant must present the change as specified in 37 CFR 1.173(b)(3). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The disclosure is objected to because of the following informalities:

The specification must be amend to identify each divisional reissue application (see 37 CFR 1.177). Note that this must be done as specified in 37 CFR 1.173(b)(1).

Appropriate correction is required.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 9, 12, 13, 15, 18, 21, and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 60-167172.

Note the embodiment of figure 6. JP 60-167172 shows a single piece head suspension with an air bearing slider mounting a head (36), the suspension having a load beam section with flanges (not numbered), a spring section (not numbered), an actuator mount section (not numbered), a flexure section (32) having a shaped opening

Art Unit: 2652

(not numbered) with two longitudinal flexure beams (not numbered), a transverse section connecting the flexure beams and to which the slider is attached, a tongue with a load protrusion (34) extending from the distal end of the load beam section. Note that the section mounting the slider is "bent" (re claim 22).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 2, 6, 9, 11-13, 15, 18, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172.

Note the embodiment of figures 3 and 4. JP 60-167172 shows a single piece head suspension with an air bearing slider mounting a head (36), the suspension having a load beam section with flanges (not numbered), a spring section (not numbered), an actuator mount section (not numbered), a flexure section (32) having a shaped opening (not numbered) with two longitudinal flexure beams (not numbered), a transverse section connecting the flexure beams and to which the slider is attached, a tongue (34) extending from the distal end of the load beam section. Note that the section mounting the slider is "bent" (re claim 22).

JP 60-167172 differs from the claimed invention in not: (A) locating the load protrusion on the tongue (re claim 1), (B) listing specific dimensions for the slider (re

Art Unit: 2652

claim 6), and (C) configuring the flexure beams to have a thinner thickness than the other sections of the suspension (re claim 11).

Concerning (A), JP 60-167172 locates the load protrusion on the slider mount member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the protrusion on the tongue. The motivation is as follows: these are art recognized equivalents that operate in the same manner and produce the same results. There is no showing of criticality.

Concerning (B), JP 60-167172 simply does not disclose dimensions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the listed dimensions. The motivation is as follows: these would have been the obvious result of routine experimentation and optimization.

Concerning (C), it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the flexure beams to have a thinner thickness than the other sections of the suspension. The motivation is as follows: this would increase the responsiveness of the flexure section (see page 14 line 8 - page 15 line 3 of the decision in Patent Interference No. 103,228).

11. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of CARLSON et al (5,008,768).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing the flexure mount side of the slider to be stepped.

Art Unit: 2652

Stepped flexure mount sides are well know and commonly used. CARLSON et al shows such a slider configuration (see figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the slider in JP 60-167172 to have a stepped flexure mount side. The motivation is as follows: CARLSON et al teaches that this reduces the overall height of the suspension/slider (see column 4 lines10-15).

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of WATROUS (4,167,765).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing a hemispherical load protrusion.

Hemispherical load protrusions are well known and commonly used. WATROUS shows such.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the load protrusion in JP 60-167172 to have a hemispherical shape. The motivation is as follows: WATROUS teaches that these are known equivalents (see column 4 lines 51-53, and Patent Interference No. 103,228 page 18 footnote 8).

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of TOENSING (5,012,367).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing how the suspension is attached to the actuator arm.

Ball staking using a swage plate is well known and commonly used. TOENSING shows such.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a swage plate for attaching the suspension in JP 60-167172. The motivation is as follows: one of ordinary skill in the art would use any known attachment structure where none was specified.

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of MOREHOUSE et al (5,237,472).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing the signal wires and their attachment means.

Attaching the signal wires using a channel along the outer flange is well known and commonly used. MOREHOUSE et al shows this (see figure 12f and column 10 lines 12-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a shallow channel along the outer flange to locate and secure the signal wires. The motivation is as follows: one of ordinary skill in the art would use any known attachment structure where none was shown.

Art Unit: 2652

15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of CHRISTIANSON et al (5,461,525).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing the spring section to have an opening.

The provision of an opening in the spring section is well known and commonly used. CHRISTIANSON et al shows such (see figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an opening in the spring section of JP 60-167172. The motivation is as follows: CHRISTIANSON et al teaches that these are equivalents.

16. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of BLAESER et al (5,187,625).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing a damping element attached to the load beam section.

The provision of a damping element on the load beam section is well known and commonly used. BLAESER et al shows such (see figures 2, 6, and 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a damping element on the load beam section of JP 60-167172. The motivation is as follows: one of ordinary skill in the art would provide such for its known improvement in reducing the amplitude of resonant modes of vibration.

17. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172 in view of WOLTER (5,291,359).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing a load tab attached to the load beam section.

The provision of a load tab on the load beam section is well known and commonly used. WOLTER shows such (see figures 7-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a load tab on the load beam section of JP 60-167172. The motivation is as follows: one of ordinary skill in the art would use any known structure where none was specified.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

HATCH et al (5,282,103) is the parent patent. The HAGEN patents (5,428,490; 5,434,731; AND 5,638,234) are cited of interest.

19. IF APPLICANT MAKES FURTHER CHANGES IN RESPONDING TO THIS OFFICE ACTION, A SUPPLEMENTAL OATH/DECLARATION MUST BE PRESENTED DEALING WITH THE CHANGES.

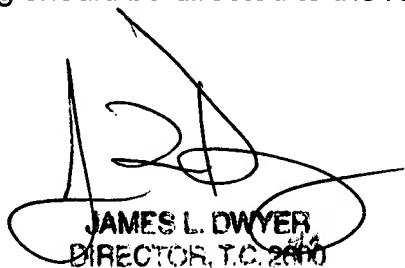
Art Unit: 2652

20. ALL CHANGES MUST COMPLY WITH 37 CFR 1.173. ANY RESPONSE NOT IN PROPER FORM WILL BE CONSIDERED NON-RESPONSIVE, AND WILL NOT BE ENTERED.

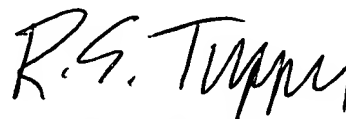
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert S Tupper whose telephone number is 703-308-1601. The examiner can normally be reached on Mon - Fri, 6:00 AM - 3:30 PM (first Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 703-305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.



JAMES L. DWYER
DIRECTOR, T.C. 2652



Robert S Tupper
Primary Examiner
Art Unit 2652

rst
January 26, 2003